

IN THE DRAWINGS

Applicant proposes to insert the caption "PRIOR ART" into Figs. 1A-1D of the drawings in accordance with the accompanying ANNOTATED SHEETS SHOWING CHANGES.

Enclosed herewith are REPLACEMENT SHEETS in which the above changes have been incorporated.

REMARKS

Enclosed herewith is a copy of the article "Towards an overview of spatial up-conversion techniques" by Meng Zhao et al., cited on page 2 of the subject specification.

The specification has been amended in accordance with MPEP §608.01(o) to provide support for terminology used in the amended claims.

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claim 4 has been cancelled, while claims 1, 15 and 16 have been amended to include the limitations of cancelled claim 4. In addition, the claims have been amended for clarity.

Claim 15 has been amended such that the method steps therein are "tied to another statutory category (such as a particular apparatus)", and claim 16 has been amended to claim "A computer-readable medium having stored thereon a computer program product...."

Applicant believes that the above changes answer the Examiner's 35 U.S.C. 101 rejections of claims 15 and 16, and respectfully request withdrawal thereof.

The Examiner has rejected claims 1-6, 9, 10 and 12-16 under 35 U.S.C. 102(a) as being anticipated by the Admitted Prior Art (Figs. 1A-1B, pages 7-11 of the Specification). The Examiner has further rejected claims 7 and 11 under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art (Figs. 1A-1D, pages 7-11 of the Specification). Furthermore, the Examiner has rejected

claim 8 under 35 U.S.C. 103(a) as being unpatentable over the Admitted Prior Art in view of U.S. Patent 5,684,544 to Astle.

The Admitted Prior Art discloses an image conversion unit comprising a pixel acquisition unit for acquiring a first set of luminance values of pixels in a first neighborhood of a particular location, and a second set of luminance values of pixels in a second neighborhood of the particular location, a filter coefficient-determining unit for determining filter coefficients on the basis of the first and second sets of luminance values, and an adaptive filter for luminance values of output pixels on the basis of the first set of luminance values and the filter coefficients.

As noted in MPEP §2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Examiner appears to equate the first and second sets of luminance values of the Admitted Prior Art to the input signal and further input signal of the subject invention.

Applicant submits that the Examiner is mistaken. In particular, independent claims 1, 15 and 16 include the limitation "said further input signal being correlated to the input signal,

wherein said first input signal is a first signal type and the further input signal is a second signal type, said second signal type being different from said first signal type". The first set of luminance values of the Admitted Prior Art are not correlated to the second set of luminance values. The term "correlated" is defined in the specification on page 3, lines 15-17, where it is stated "With correlated is meant that the signals e.g. originate from the same source, are captured simultaneously, correspond to the same object or scene, or that one of the signals is derived from the other." Applicant submits that while the second set of luminance values may include the first set of luminance values, the second set of luminance values is not correlated to the first set of luminance values in that luminance values in the second set of luminance values not corresponding to the first set of luminance values originate from pixels completely different from the pixels used to obtain the first set of luminance values. In the example described in the Admitted Prior Art, the first set of luminance values is taken from pixels 1-4, while the second set of luminance values is taken from pixels 1-16. As such, Applicant submits that the luminance values from pixels 5-16 are not correlated to the luminance values from pixels 1-4.

Further, both the first set of luminance values and the second set of luminance values are of the same signal type, i.e., luminance values. In the subject invention, as claimed, the input signal and the further input signal are different signal types. In the example shown in Fig. 2 and described in the specification on

page 12, line 4 to page 13, line 14, the input signal is a chrominance signal (U), while the further input signal is a luminance signal correlated to the chrominance signal of the input signal.

Applicant therefore submits that the Admitted Prior Art neither discloses nor suggests the subject invention as claimed.

The Astle patent discloses an apparatus and method for upsampling chroma pixels, in which the upscaling chroma pixels is performed by using luma pixel information to improve the accuracy of the upscaling process. However, Applicant submits that Astle neither discloses nor suggests that luminance values, correlated to chrominance values, should be used to determine filter coefficients for adaptively filtering the chrominance values.

In view of the above, Applicant believes that the subject invention, as claimed, is neither anticipated nor rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicant believes that this application, containing claims 1-3 and 5-16, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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